1/23/15 DRAFT (Navy/DLA suggested edits to Regulator redline)

ATTACHMENT A

STATEMENT OF WORK

DEPARTMENT OF THE NAVY

RED HILL BULK FUEL STORAGE FACILITY

OAHU, HAWAII

Statement of Work

Contents

[TOC \o "1-3" \h \z \u]

Introduction

This Statement of Work ("SOW") sets forth the tasks and requirements to be undertaken by the Navy and the Defense Logistics Agency ("DLA"), in compliance with the Administrative Order on Consent ("AOC") in the Matter of Red Hill Bulk Fuel Storage Facility ("Facility"), located near Pearl Harbor, on the island of Oahu in the State of Hawaii. The primary objective of the AOC and SOW is to take steps to ensure that the groundwater resource under the Facility is protected. The Navy, DLA, the Hawaii Department of Health ("DOH") and the Environmental Protection Agency ("EPA"), collectively referred to as "the Parties" in this SOW, agree that this objective can best be accomplished by ensuring that the tanks and other infrastructure at the Facility deploy the best available practicable technology ~~to the maximum extent practicable~~ (BAPT) (as defined in Section 3) to prevent fuel releases, developing a better understanding of the hydrogeology of the area surrounding the Facility and conducting an assessment of the risk to the groundwater resources that may be posed by the Facility.

The major components of the Work are summarized below:

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(1) The Navy and DLA will improve upon an existing tank inspection and repair process to ensure that the tank infrastructure prevents releases of fuel to the maximum extent practicable;

(2) The Navy and DLA will undertake a comprehensive study to investigate the feasibility of upgrading the tank structures including, but not limited to, secondary containment. This study will evaluate several technologies, building on similar efforts conducted by the Navy in 1998 and 2008. After completing the study, a technology or technologies will be approved ~~and selected~~ by DOH and EPA ("the Regulatory Agencies") and implemented by the Navy and DLA. Implementation will occur in ~~3-5 year~~ phases so that all tanks in operation will deploy best available practicable technology ("BAPT"), as approved by the Regulatory Agencies, within 22 years of the effective date of the AOC or as otherwise provided for in this agreement.

(3) The Navy and DLA will ~~initially~~, as an interim measure, double the frequency of their tank tightness testing from biennial to annual and continue to continuously monitor inventory. The Navy and DLA shall conduct the next round of tank tightness testing no later than one year from the effective date of this AOC. As set forth below, the Navy and DLA will also conduct a study to evaluate improvements to the tank tightness and leak detection technologies deployed at the Facility and, pending the outcome of the study and approval by the Regulatory Agencies, implement improvements.

(4) The Navy and DLA will develop models to understand groundwater flow in the areas around the Facility and evaluate the fate and transport of contaminants in the subsurface. As set forth below, based on the modeling effort, as approved by the Regulatory Agencies, the Navy and DLA will develop and improve the existing groundwater monitoring network ~~to the extent determined necessary~~.

(5) The Navy and DLA will develop a risk/vulnerability assessment, subject to approval by the Regulatory Agencies, in an effort to further understand the potential for and potential impacts of fuel releases from the Facility on the island's drinking and groundwater supplies~~, to be approved by the Regulatory Agencies~~, and to inform the Parties in development of subsequent BAPT decisions.

1. Overall Project Management

1.1 Subject Matter Experts Involvement

It is the intent of the Parties to seek the technical advice of subject matter experts, such as the Honolulu Board of Water Supply and the Hawaii Department Land of Natural Resources, as needed, for scoping and review of key deliverables.

1.2 Community Involvement

The Parties will update the public jointly based on public interest and at the request of one of the ~~stakeholders~~Parties. The Navy and DLA shall submit a synopsis of each final report developed under the AOC and this SOW to the Regulatory Agencies who may make that ~~will be~~synopsis available to the public.

1.3 Meetings

Meetings may consist of in-person, telephone, or video-conferences, the form of which will be based on budget constraints, schedules, and other considerations. Within ten (10) business days of a meeting, the Navy and DLA shall circulate a summary of the meeting to the Parties for concurrence. The Parties may request additional meetings beyond the meetings outlined in this SOW, as needed.

1.4 Regulatory Agency Written Responses

The Regulatory Agencies will provide joint, written responses for all responses to the Navy and DLA under Section 7 of the AOC (Regulatory Agencies' Approval of Deliverables).

1.5 Quality Assurance

The Navy and DLA shall include a discussion of quality assurance and quality control (QA/QC) procedures in each Scope of Work submitted to the Regulatory Agencies for approval as required in this SOW. The QA/QC procedures shall be used to ensure that environmental or other data generated meets standards established by the Parties.

~~When appropriate, QA/QC procedures shall follow EPA's Quality Systems for Environment and Technology which are available at~~ Department of Defense Instruction 4120.24 establishes the Unified Facilities Criteria which are the facilities and infrastructure component of the Defense Standardization Program. Construction QA/QC shall be designed to meet Unified Facilities Guide Specifications (UFGS) for Quality Control Systems including UFGS - 01 45 00. 00 10 and Quality Control UFGS - 01 45 00. 00 20 or successor guidance.

Issued under the authority of Secretary of Navy Instruction 5090.8A, Policy for Environmental Protection, Natural Resources, and Cultural Resources Program; Chapter 7 of Chief of Naval Operations Instruction 5090.1D, Environmental Readiness Program Manual, or successor guidance, shall be used to establish requirements, policy, and responsibilities for establishing environmental quality system for activities and programs involving the collection, management and use of environmental data. QA /QC procedures shall be designed to meet the requirements of DoD Policy and

Guidelines for Acquisitions Involving Environmental Sampling and Testing (November 2007) or successor guidance.

Navy and DLA shall only use laboratories that have a documented quality system that complies with the "Uniform Federal Policy for Quality Assurance Project Plans" (March 2005), and the "EPA Requirements for Quality Management Plans for Environmental Data Operations (QA/R-5)" (EPA/240/B-01/003, March 2001), or equivalent documentation as determined by EPA.

~~The Navy and DLA shall submit an overall Quality Assurance Program Plan (QAPP) for the work to be done under this SOW that generates data, describing the overall approach to be utilized for QA/QC for each applicable Task in this SOW. This brief plan shall be submitted for Regulatory Agencies' approval within sixty (60) days of the Effective Date of the AOC.~~
~~Upon approval by the Regulatory Agencies, the overall QAPP shall be implemented for each applicable task under the AOC and this SOW.~~

2. Tank Inspection and Repair Procedures

The purpose of the deliverables to be developed under this Paragraph is to evaluate and document tank inspection and repair procedures to ensure the continued integrity of the bulk fuel field constructed underground storage tank ("~~UST~~tank") system at the Facility. At a minimum, this deliverable will evaluate and document the following:

- Current tank inspection and repair procedures;
- Lessons learned from Tank 5 and related modifications to current procedures;
- Quality Control and Assurance of tank inspection and repair;
- Improvement opportunities;
- Schedule/frequency of modified API 653 tank inspections and repairs; and
- Tank re-commissioning procedures up to and including the re-filling process.

2.1 Scoping Meeting for Tank Inspection and Repair Procedures Report

Within thirty (30) days from the Effective Date of the AOC, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting will be to detail the contents of the Tank Inspection and Repair Procedures Report.

2.2 Tank Inspection and Repair Procedures Report

Within 120 days from the Scoping Meeting, the Navy and DLA shall submit a Tank Inspection and Repair Procedures Report to the Regulatory Agencies ~~for approval.~~. The Tank Inspection and Repair Procedures Report shall describe the current procedures and ~~present~~describe options for improvements.

2.3 Tank Inspection and Repair Procedures Decision Meeting

Within sixty (60) days from the ~~approval~~receipt by the Regulatory Agencies of the Tank Inspection and Repair Procedures Report, the Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to outline the Tank Inspection and Repair Procedures Implementation Plan for improvements to future tank inspection and

repair. During the meeting, the options, criteria, and weighting factors for the decision will be discussed, and all parties will communicate their preferences. The specific decisions will not be made during this meeting. The final decisions will be established at the point the Regulatory Agencies approve the decision document.

2.4 Tank Inspection and Repair Procedures Decision Document/Implementation Plan

Within sixty (60) days from the Decision Meeting, the Navy and DLA shall submit a Tank Decision Document and Inspection and Repair Procedures Implementation Plan and schedule to the Regulatory Agencies for approval. Once approved by the Regulatory Agencies, the Navy shall proceed with implementation of the Tank Decision Document and Inspection and Repair Procedures Implementation Plan.

3. Tank Upgrade Alternatives

The purpose of the deliverables to be developed under this Paragraph will be to determine the best available practicable technologies ("BAPT") that can be applied to the ~~USTs~~ 12.5 – 12.7 million gallon tanks at the Facility to prevent releases.

As used in this document, Best Available Practicable Technology ("BAPT") means a proven scientific or technical process, method, or knowledge, which can be implemented immediately and is cost-effective. A determination of the BAPT shall include, but is not limited to, consideration of the following factors: the risks and benefits of the particular technology; the capabilities and condition of any equipment and facilities involved; the processes employed or changed; the engineering aspects of the applying the technology; and the cost of implementing and maintaining the technology. Reliance on any one of these factors to the exclusion of other factors is inappropriate. For example, a particular technology would not constitute the BAPT when its application would achieve only a minimal benefit – if the risks or costs of employing that technology were exorbitant. However, the same technology might qualify as the BAPT if it can be employed at little additional cost, and no other factors weigh against its implementation. Similarly, a technology that achieves substantial improvements should not be rejected merely because the anticipated cost is significant. In addition, the technology must be truly available and proven; meaning that any experimental or developmental technology would not constitute the BAPT since it has not yet been scientifically proven to be effective. However, the parties may decide to pursue pilot programs to evaluate unproven technologies and use data and conclusions drawn from such pilot programs in subsequent determinations of the BAPT.

After the approval of BAPT, the Navy and DLA shall apply BAPT, or an approved pilot program technology, to all in-service tanks as part of their respective maintenance and repair cycles ~~in accordance with schedules established in the Tank Upgrade Alternatives Implementation Plan. As individual tanks enter the repair cycle, the most current version of BAPT approved by the Regulatory Agencies shall be implemented as part of the individual tank's maintenance and repairs.~~ The BAPT ~~will likely~~may change, as new technologies become available, however the BAPT requirement may be satisfied by any BAPT in effect during budgetary planning or programing for the respective tank inspection and repair cycle as further defined in the Tank Upgrade Alternatives Decision Document/Implementation Plan, or by any approved pilot program technology that is successfully implemented.

The Navy and DLA shall complete upgrades to the Red Hill tanks in accordance with BAPT as approved by the Regulatory Agencies of all Red Hill tanks actively storing fuel within 22 years of the Effective Date of the AOC. Tanks not meeting this BAPT upgrade deadline shall be immediately taken out of service until the BAPT upgrade can be completed. If ~~the initial~~any BAPT ~~decision~~decision requires military construction funding (a "MILCON"), an extension of up to 5 years ~~on the original 22 year deadline~~ may be granted by the Regulatory Agencies. The Navy and DLA shall make a good faith effort to comply with the original 22 year deadline even if a MILCON is required to meet the original BAPT.

At a minimum, the deliverable will evaluate the following:

- Tank Upgrades;
- Secondary Containment Alternatives;
- Coatings;
- Liners/Bladders;
- Associated Leak Detection Systems; and
- Other Alternatives.

3.1 Initial Scoping Meeting for Tank Upgrade Alternatives Report

Within thirty (30) days ~~of~~from the Effective Date of the AOC, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting will be to detail the contents of the Scope of Work for this section. During the meeting, criteria for decision making will be discussed.

3.2 Tank Upgrade Alternatives Scope of Work

Within ninety (90) days from the final Scoping Meeting, the Navy and DLA shall submit the Scope of Work for Tank Upgrade Alternatives to the Regulatory Agencies for approval.

3.3 Tank Upgrade Alternatives Report

Within twelve (12) months from when the Scope of Work is approved, the Navy and DLA shall submit a Tank Upgrade Alternatives Report to the Regulatory Agencies for approval.

3.4 Tank Upgrade Alternatives Decision Meeting

Within sixty (60) days from the Regulatory Agencies' approval of the Tank Upgrade Alternatives Report, the Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to ~~determine~~discuss BAPT and subsequent actions for maintaining, repairing, and upgrading the USTs at the Facility. ~~During the meeting, the options, criteria, and weighting factors for the decision will be discussed, and all parties will communicate their preferences.~~ The specific decisions will not be made during this meeting. The final decisions will be established at the point the regulatory agencies approve the decision document.

3.5 Tank Upgrade Alternatives Decision Document/Implementation Plan

Within sixty (60) days from the Decision Meeting, the Navy and DLA shall submit a Tank Upgrade Alternatives Decision Document ("TUA Decision Document") to the Regulatory Agencies for approval. The TUA Decision Document shall define the BAPT to be applied to the in-service tanks at the Facility at the beginning of their inspection and repair cycle. The Navy and DLA shall also submit a TUA Implementation Plan with the TUA Decision Document and include a proposed schedule for implementation. The beginning of the inspection and repair cycle shall be defined in the TUA Decision Document and Implementation Plan. The TUA Decision Document will incorporate, as appropriate, the decisions made under sections 2 and 4 of this SOW. Once approved by the Regulatory Agencies, the Navy shall proceed with implementation of the TUA Decision Document and Implementation Plan in accordance with the approved schedule.

3.6 Tank Upgrade Alternatives Re-evaluation

At least once every five (5) years from the approval of the TUA Decision Document, the Navy and DLA shall evaluate new technologies to determine if new technologies may be available and practicable to implement in the Facility. The Navy and DLA shall propose a scope and process ("re-evaluation SOW") for this re-evaluation to the Regulatory Agencies for their approval for each re-evaluation period. This re-evaluation process shall commence with the submittal of a re-evaluation SOW within 54 months of the Regulatory Agencies' approval of the TUA Decision Document for the initial re-evaluation, and within 54 months of the Regulatory Agencies approval of the last re-evaluation report for the subsequent re-evaluations. A re-evaluation result report, and subsequent decision document and implementation plan, subject to the approval of the Regulatory Agencies, will be part of the scope of the re-evaluation process. The ~~Regulatory Agencies~~Parties may update the required BAPT based on the results of these re-evaluations.

4. ~~Leak~~ Release Detection ~~Systems ("LDS") and Tank Tightness Testing~~

The purpose of these deliverables is to document the current ~~LDS~~leak detection system (LDS) and tank tightness testing procedures used at the Facility and to evaluate modifications to the ~~leak detection~~LDS and tank tightness testing procedures which could be applied to the Facility.

4.1 Tank Tightness Testing Frequency

Until the approval of the ~~LDS and Tank Tightness Testing~~New Release Detection Alternatives Decision Document ~~and~~ /Implementation ~~plan~~Plan as described in Sections 4.6 and 4.8 below, the Navy and DLA shall increase their tank tightness testing from a biennial test to an annual test, continue to use an inventory control monitoring system, and conduct monthly vapor monitoring for all tanks in service.

4.2 Outline for Current ~~Leak Detection~~Fuel Release Monitoring Systems Report

Within thirty (30) days from the Effective Date of the AOC, the Navy and DLA shall submit a document outlining the contents of the Current ~~Leak Detection~~Fuel Release Monitoring Systems Report ("Current ~~Leak Detection~~Fuel Release Monitoring Systems Report Outline") to the Regulatory Agencies for approval.

4.3 Current ~~Leak Detection~~ Fuel Release Monitoring Systems Report

Within sixty (60) days from approval of the Current ~~Leak Detection~~ Fuel Release Monitoring Systems Report Outline, the Navy and DLA shall submit a Current Leak Detection Monitoring Systems Report to the Regulatory Agencies for approval. At a minimum, the Report shall include:

- Recordkeeping procedures;
- Dynamic filling procedures for ~~re-commissioning and~~ daily operations;
- Static and Dynamic Leak Detection Systems;
- Leak detection sensitivity; and
- Provide the 2008 LDS Study and 2014 Market Survey Update.

4.4 Initial Scoping Meeting for New ~~LDS and Tank Tightness Systems Testing~~Release Detection Alternatives

Within sixty (60) days from Regulatory approval of the Current ~~Leak Detection~~Fuel Release Monitoring Systems Report, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting will be to detail the contents of the Scope of Work for the study to evaluate possible new or improved ~~LDS and Tank Tightness testing procedures~~release detection alternatives.

4.5 New ~~LDS and Tank Tightness Testing Procedures~~Release Detection Alternatives Scope of Work

Within ninety (90) days from the Final Scoping Meeting, the Navy and DLA shall submit the New ~~Leak~~Release Detection ~~and Tank Tightness Testing Procedures~~Alternatives Scope of Work to the Regulatory Agencies for approval. During the meeting, criteria for decision making will be discussed.

4.6 New ~~LDS and Tank Tightness Testing Procedures~~Release Detection Alternatives Report

Within twelve (12) months from approval of the New ~~Leak~~Release Detection ~~and Tank Tightness Testing Procedure~~Alternatives Scope of Work, the Navy and DLA shall submit a New ~~Leak~~Release Detection ~~and Tank Tightness Testing Procedure Technology~~Alternatives Report to the Regulatory Agencies for approval. The New Leak Detection and Tank Tightness Testing Procedure Technology Report shall include:

- A description of existing practices;
- Static and Dynamic Leak Detection System Alternatives;
- Tank tightness ~~system~~ alternatives;
- Comparison of existing and alternative technologies effectiveness; and
- Decision Matrix.

4.7 New ~~LDS and Tank Tightness Testing~~Release Detection Alternative Decision Meeting

Within sixty (60) days from the Regulatory Agencies' approval of the New ~~Leak~~Release Detection ~~and Tank Tightness Systems Technology~~Alternatives Report, the Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to determine subsequent actions for implementing the new ~~LDS and tank tightness systems as appropriate. During the meeting, the options, criteria, and weighting factors for the decision will be discussed, and all parties will communicate their preferences~~ release detection alternatives as

appropriate. The specific decisions will not be made during this meeting. The final decisions will be established at the point the regulatory agencies approve the decision document.

4.8 New ~~LDS and Tank Tightness Testing~~Release Detection Alternatives Decision Document/Implementation Plan

Within sixty (60) days after the Decision Meeting, the Navy and DLA shall submit a ~~Tank Tightness~~Release Detection Alternatives Decision Document ~~and~~/ Implementation Plan including an implementation schedule to the Regulatory Agencies for approval. Once approved by the Regulatory Agencies, the Navy and DLA shall proceed with implementation of the ~~Tightness~~Release Alternatives Decision Document ~~and~~ /Implementation Plan in accordance with the approved schedule.

5. Corrosion and Metal Fatigue Practices

The purpose of the deliverables to be developed under this Paragraph is to understand the possibility and extent of corrosion and metal fatigue as well as practices to control corrosion and metal fatigue at the Facility.

The Navy and DLA shall maintain records of and continue efforts to complete internal cleaning and inspection of the aboveground pipelines in the tunnels within the Facility.

5.1 Outline of Corrosion and Metal Fatigue Practices Report

Within thirty (30) days of the Effective Date of the AOC, the Navy and DLA shall submit an outline detailing the contents of the pending Corrosion and Metal Fatigue Practices Report ("Outline of Corrosion and Metal Fatigue Practices Report") to the Regulatory Agencies for approval.

5.2 Corrosion and Metal Fatigue Practices Report

Within sixty (60) days from approval of the Outline of Corrosion and Metal Fatigue Practices Report, the Navy and DLA shall submit a Corrosion and Metal Fatigue Practices Report to the Regulatory Agencies for approval. The Corrosion and Metal Fatigue Practices Report shall include, among other things, an explanation of the current practices for assessing the condition of the tanks and associated fuel containment infrastructure, including details on the non-destructive testing procedures. Additionally the report will describe the recordkeeping procedures for corrosion and metal fatigue testing and assessment at the Red Hill Facility.

5.3 Destructive Testing Formatted: Font: Times New Roman

The purpose of the deliverables to be developed under this Paragraph is to verify the findings of the Corrosion and Metal Fatigue Practices Report through the use of destructive testing on tanks at the Facility.

5.3.1 Destructive Testing **Scoping Meeting**

Within ninety (90) days from the approval of the Corrosion and Metal Fatigue Practices Report, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the scoping meeting will be to detail the contents of the Destructive Testing Scope of Work.

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~~5.4 Destructive Testing~~

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~~The purpose of the deliverables to be developed under this Paragraph is to verify the findings of the Corrosion and Metal Fatigue Practices Report through the use of destructive testing on the USTs at the Facility.~~

5.4.13.2. **Destructive Testing Scope of Work**

Within ninety (90) days from the Destructive Testing Scoping Meeting, the Navy and DLA shall submit a Destructive Testing Scope of Work, including a plan for implementation and a proposed schedule, to the Regulatory Agencies for approval. The Scope of Work shall detail planned destructive testing to be conducted on at least one (1) ~~UST~~Tank at the Facility. Once approved by the Regulatory Agencies, the Navy shall proceed with implementation of the Scope of Work in accordance with the approved schedule contained in the plan.

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5.~~4.2~~3.3. **Destructive Testing Results Report**

Within twenty-four (24) months from the approval of the Destructive Testing Scope of Work, the Navy and DLA shall submit the Destructive Testing Results Report to the Regulatory Agencies for approval.

5.~~5~~4 **Decision on Need for and Scope of Modified Corrosion and Metal Fatigue Practices**

If the previous tasks in this section indicate the need for evaluation and implementation of potential changes in practices to control corrosion ~~and~~or metal fatigue as determined by the ~~Regulatory Agencies~~Parties, the Navy and DLA shall ~~proceed with implementation of Tasks 5.5.1 and 5.5.2.~~

~~5.5.1 Modification of Corrosion and Metal Fatigue Practices Decision Meeting~~

~~Within~~, within sixty (60) days from the Regulatory Agencies' approval of the Destructive Testing Results Report, ~~and if the Regulatory Agencies determined that changes in practices may be warranted, the Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to determine subsequent actions changing the corrosion and metal fatigue practices. During the meeting, the options, criteria, and weighting factors for the decision will be discussed, and all parties will communicate their preferences. The specific decisions will not be made during this meeting. The final decisions will be established at the point the regulatory agencies approve the decision document~~ schedule and hold a scoping meeting to be attended by the Parties for the propose of developing appropriate modifications to the scopes of work and timelines in Section 2 and/or Section 3. Additional scoping meetings shall be conducted, and deliverables shall be modified or added using appropriate procedures in Section 2 and/or Section 3, as determined necessary by the Parties, to

address any needs for further evaluation, development, or implementation of practices to control corrosion or metal fatigue. Once approved by the Regulatory Agencies, the Navy and DLA shall proceed with implementation of approved modifications.

~~5.5.2 Modification of Corrosion and Metal Fatigue Practices Decision Document/Implementation Plan~~

~~Within sixty (60) days from the Decision Meeting, the Navy and DLA shall submit a Modification of Corrosion and Metal Fatigue Practices Decision Document and an Implementation Plan and schedule to the Regulatory Agencies for approval. Once approved by the Regulatory Agencies, the Navy shall proceed with implementation of the approved plan.~~

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6. Investigation and Remediation of Releases

The purpose of these deliverables is to determine the feasibility of alternatives for investigating and remediating releases from the Facility ~~and proceed with work in accordance with an approved implementation plan for investigating and remediating releases.~~ The deliverables shall include:

- The response to the January 2014 release from Tank # 5
- A discussion of potential remediation methods for the January 2014 release and future releases.

6.1 Initial Scoping Meeting for Investigation and Remediation of Releases

Within thirty (30) days from the Effective Date of the AOC, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting will be to detail the contents of the Investigation and Remediation Releases Scope of Work. During the meeting, the criteria, for decision making will be discussed.

6.2 Investigation and Remediation of Releases Scope of Work

Within sixty (60) days of the final Scoping Meeting, the Navy and DLA shall submit the Investigation and Remediation of Releases Scope of Work to the Regulatory Agencies for approval.

6.3 Investigation and Remediation of Releases Report

Within twenty-four (24) months from the approval of the Investigation and Remediation of Releases Scope of Work, the Navy and DLA shall submit the Investigation and Remediation Releases Report to the Regulatory Agencies for approval.

6.4 Investigation and Remediation of Releases Decision Meeting

Within sixty (60) days from the Regulatory Agencies' approval of the Investigation and Remediation of Releases Report, the Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to evaluate the feasibility to investigate and remediate potential releases from the Facility to the maximum extent practicable. ~~During the~~

meeting, the options, criteria, and weighting factors for the decision will be discussed, and all parties will communicate their preferences. The specific decisions will not be made during this meeting. The final decisions will be established at the point the regulatory agencies approve the decision document.

6.5 Investigation and Remediation of Releases Decision Document/Implementation Plan

Within sixty (60) days from the Decision Meeting, the Navy and DLA shall submit a Decision Document and Implementation Plan for the Investigation and Remediation of Releases, including a proposed schedule for implementation, to the Regulatory Agencies ("the Investigation and Remediation of Releases Decision Document and Implementation Plan"). Once approved by the Regulatory Agencies, the Navy shall proceed with implementation of the Investigation and Remediation of Releases Decision Document and Implementation Plan in accordance with the approved schedule.

7. Groundwater Protection and Evaluation

The purpose of the deliverables to be developed under this Paragraph is to monitor and characterize the flow of groundwater around the Facility. The Navy and DLA shall update the existing Groundwater Protection Plan to include response procedures and trigger points in the event that contamination from the Facility shows movement toward any drinking water well. The collective work done pursuant to all sub-tasks in this section shall be used to inform the subsequent changes to the Groundwater Protection Plan. This task may include the installation of additional monitoring wells as needed.

7.1 Groundwater Flow Model Report

The purpose of this deliverable is to refine the existing groundwater flow model and improve the understanding of the direction and rate of groundwater flow within the aquifers around the Facility.

7.1.1 Initial Scoping Meeting for Groundwater Flow Modeling Report

Within thirty (30) days from the Effective Date of the AOC, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the scoping meeting will be to detail the contents of the draft Scope of Work for the Groundwater Flow Model Report.

7.1.2. Groundwater Flow Modeling Report Scope of Work

Within ninety (90) days from the Final Scoping Meeting, the Navy and DLA shall submit the Groundwater Flow Model Scope of Work to the Regulatory Agencies for approval. The Groundwater Flow Model Scope of Work shall consider interim deliverables to refine the groundwater flow modeling and related data requirements prior to completion of the Groundwater Flow Modeling Report. At a minimum, progress reports shall be provided to the Regulatory Agencies every four (4) months after approval of the Groundwater Flow Modeling Report Scope of Work.

7.1.3. Groundwater Flow Modeling Report

Within twenty-four (24) months from the approval of the Groundwater Flow Model Report Scope of Work, the Navy and DLA shall submit a Groundwater Flow Model Report to the Regulatory Agencies for approval.

7.2 Contaminant Fate and Transport Model Report

The purpose of the Contaminant Fate and Transport Modeling Report is to utilize the groundwater flow model to improve the understanding of the potential fate and transport, degradation, and transformation of contaminants that have been and could be released from the Facility.

7.2.1 Initial Scoping Meeting for Contaminant Fate and Transport Model Report

Within thirty (30) days from the Effective Date of the AOC, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the scoping meeting will be to detail the contents of the draft Scope of Work for the Contaminant Fate and Transport Model.

7.2.2. Contaminant Fate and Transport Model Report Scope of Work

Within ninety (90) days from the Final Scoping Meeting, the Navy and DLA shall submit the Contaminant Fate and Transport Model Scope of Work to the Regulatory Agencies for approval.

7.2.3. Contaminant Fate and Transport Model Report

Within one-hundred and eighty (180) days from the Groundwater Flow Model Report Approval, the Navy and DLA shall submit a Contaminant Fate and Transport Model Report to the Regulatory Agencies for approval.

7.3 Groundwater Monitoring Well Network

The primary purpose of the deliverable is to evaluate the number and placement of groundwater monitoring wells required to adequately identify possible contaminant migration. The secondary purpose of this deliverable is to obtain additional data for the Groundwater Flow Model and Contaminant Fate and Transport Model Report.

7.3.1 Initial Scoping Meeting for Groundwater Monitoring Well Network

Within thirty (30) days from the Effective Date of the AOC, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the scoping meeting will be to detail the contents of the draft Scope of Work for the Groundwater Monitoring Well Network. During the meeting, the criteria for decision making will be discussed.

7.3.2 ~~Wells~~Groundwater Monitoring Well Network Scope of Work

Within ninety (90) days from the Final Scoping Meeting, the Navy and DLA shall submit the Groundwater Monitoring Well Network Scope of Work to the Regulatory Agencies for approval. The Groundwater Monitoring Well Network Scope of work shall consider interim deliverables for developing a groundwater monitoring well network based activities to develop the groundwater flow modeling and related data requirements.

7.3.3 Groundwater Monitoring Well Network Draft Final Report

Within twelve (12) months from approval of the Groundwater Flow Model Report, the Navy and DLA shall submit a Groundwater Monitoring Well Network Report. This report will include a

recommendation of the number and location of groundwater monitoring wells including those already installed and potential new wells to the Regulatory Agencies for approval.

7.3.4 Groundwater Monitoring Well Network Decision Meeting

Within sixty (60) days from approval of the Groundwater Monitoring Well Network Report, the Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to evaluate subsequent actions for implementing the ~~new~~ Groundwater Monitoring Well ~~Network. During the meeting, the options, criteria, and weighting factors for the decision will be discussed, and all parties will communicate their preferences. The~~Network The specific decisions will not be made during this meeting. The final decisions will be established at the point the regulatory agencies approve the decision document.

7.3.5 Groundwater Monitoring Well Network Decision Document/Implementation Plan

Within sixty (60) days from the Decision Meeting, the Navy and DLA shall submit a Decision Document and Implementation Plan for the Groundwater Modeling Well Network, including a proposed schedule, to the Regulatory Agencies for approval. Once approved by the Regulatory Agencies, the Navy shall proceed with implementation of the Decision Document and Implementation Plan for the Groundwater Modeling Well Network in accordance with the approved schedule.

8. Risk/Vulnerability Assessment

The purpose of the deliverable to be developed under this Paragraph is to assess the level of risk the Facility ~~poses~~may pose to the groundwater and drinking water aquifers and to inform the parties in subsequent development of BAPT decisions.

The Risk/Vulnerability Assessment Report may include:

- A risk matrix;
- Probability of ~~the~~ catastrophic events (seismic events, leaks);
- Hydrology studies, as completed;
- Probability of mechanical and human errors; and
- Effectiveness of risk mitigation and protective measures.

8.1 Initial Scoping Meeting for Risk/Vulnerability Assessment

Within thirty (30) days from the Effective Date of the AOC, the Navy and DLA shall schedule and hold a Scoping Meeting to be attended by the Parties. The purpose of the scoping meeting will be to detail the contents of the draft Scope of Work for Risk/Vulnerability Assessment.

8.2 Risk/Vulnerability Assessment Scope of Work

Within ninety (90) days from the Final Scoping Meeting, the Navy and DLA shall submit the Risk/Vulnerability Assessment Scope of Work to the Regulatory Agencies for approval.

8.3 Initial Risk/Vulnerability Assessment Report

Within eighteen (18) months from the Regulatory Agencies' approval of the Risk/Vulnerability Assessment Scope of Work, the Navy and DLA shall submit an Initial Risk/Vulnerability Assessment Report to the Regulatory Agencies for approval. The Risk/Vulnerability assessment may be revised

~~subject to the Regulatory Agencies' approval~~ as new information becomes available. All revisions to the document shall be submitted to the Regulatory Agencies for approval.

9. Deliverables Table

Subject	Deliverables	Dates
Section 2		
Tank Inspection and Repair Procedures	2.1 - Scoping Meeting	Within 30 days from AOC
	2.2 - Tank Inspection and Repair Procedures Report	Within 120 days from Scoping Meeting
	2.3 - Decsion Meeting	Within 60 days from Report Approval
	2.4 - Decsion Document/Implementation Plan	Within 60 days from Decision Meeting
Section 3		
Tank Maintenance, Repair, Upgrades,	3.1 - Scoping Meeting	Within 30 days from AOC
and Secondary Containment -	3.2 - Scope of Work Submittal	Within 90 days from final Scoping Meeting
Maintenance, repair, and upgrade all in-service	3.3 - Tank Upgrade Alternatives Report	Within 12 months from SOW Approval
tanks within 22 years unless extension granted	3.4 - Decision Meeting	Within 60 days from Report Approval
	3.5 - Decision Document/Implementation Plan	Within 60 days from Decision Meeting
	3.6 - Tank Upgrade Alternatives Re-evaluation	At least once every 5 years from Decision Document Approval
Section 4		
Leak Detection and Tank Tightness	4.1 - Initial Annual Tank Tightness Testing	Upon Effective Date of AOC
	4.2 - Outline of Current Fuel Release Monitoring Systems Repor	Within 30 days from AOC
	4.3 - Current Fuel Release Monitoring Systems Report	Within 60 days from Approval of Outline
	4.4 - Scoping Meeting for New Technology	Within 60 days from Report Approval
	4.5 - Scope of Work Submittal for New Technology	Within 90 days from final Scoping Meeting
	4.6 - Final Report of New Technology	Within 12 months from Scope Approval
	4.7 - Decision Meeting	Within 60 days from Report Approval
	4.8 - Decision Document/Implementation Plan	Within 60 days from Decision Meeting
Section 5		
Corrosion and Metal Fatigue	5.1 - Outline of Corrosion and Metal Fatigue Report	Within 30 days from AOC
	5.2 - Corrosion and Metal Fatigue Assessment Report	Within 60 days from Outline Approval
	5.3.1 - Scoping Meeting for Destructive Testing	Within 90 days from Report Approval
	5.3.1 - Scope of Work Submittal for Destructive Testing	Within 90 days from Scoping Meeting
	5.3.2 - Destructive Testing Results Report	Within 24 months from Scope Approval
	5.4 - Decision on Need for Modified Practices Evaluation	TBD, Meeting w/in 60 days of Rpt Approval if Requied
Section 6		
Investigation and Remediation of Releases	6.1 - Scoping Meeting	Within 30 days from AOC
	6.2 - Scope of Work Submittal	Within 60 days from final Scoping Meeting
	6.3 - Investigation and Remediation of Releases Report	Within 24 months from Scope Approval
	6.4 - Decision Meeting	Within 60 days from Report Approval
	6.5 - Decsion Document/Implementation Plan	Within 60 days from Decision Meeting
Section 7		
Groundwater Protection and Evaluation	7.1.1 - Scoping Meeting	Within 30 days from AOC
Section 7.1	7.1.2 - Scope of Work Submittal	Within 90 days from final Scoping Meeting
Groundwater Flow Model Report	7.1.3 - Groundwater Flow Modeling Report	Within 24 months from Scope Approval
Section 7.2	7.2.1 - Scoping Meeting	Within 30 days from AOC
Contaminant Fate and Transport Model	7.2.2 - Scope of Work Submittal	Within 90 days from Scoping Meeting
	7.2.3 - Contaminant Fate and Transport Model Report	Within 180 days from GW Flow Model Report Approval
Section 7.3	7.3.1 - Initial Scoping Meeting	Within 30 days from AOC
Groundwater Monitoring Well Network	7.3.2 - Scope of Work Submittal	Within 90 days from Scoping Meeting
	7.3.3 - Final Groundwater Monitoring Well Report	Within 12 months from GW Flow Report Approval
	7.3.4 - Decision Meeting	Within 60 days from GW Monitoring Well Report
	7.3.5 - Implementation Plan/Decision Document	Within 60 days from Decsion Meeting
Section 8		
Risk/Vunerability Assessment	8.1 - Scoping Meeting	Within 30 days from AOC
	8.2 - Scope of Work Submittal	Within 90 days from final Scoping Meeting
	8.3 - Initial Risk/Vulnerability Assessment Report	Within 18 months of Scope Approval

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